

DOE/RW-XXXX



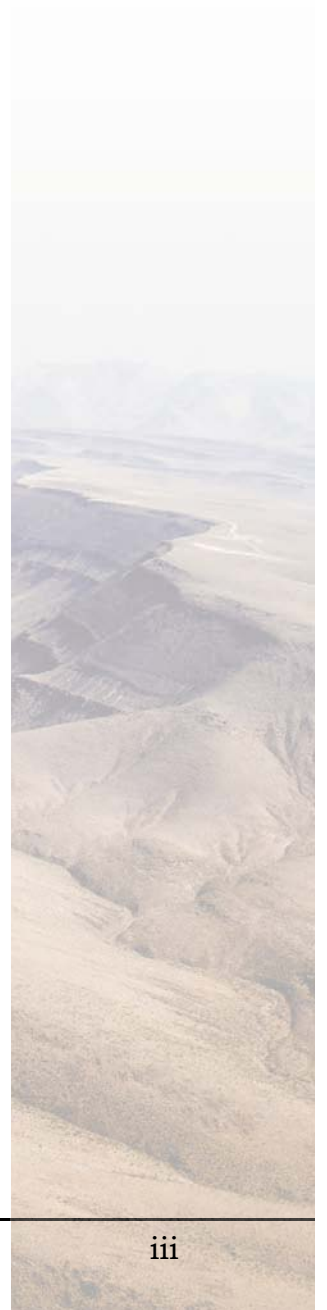
Office of
Science and Technology and International

International Program Strategic Plan

December 2004

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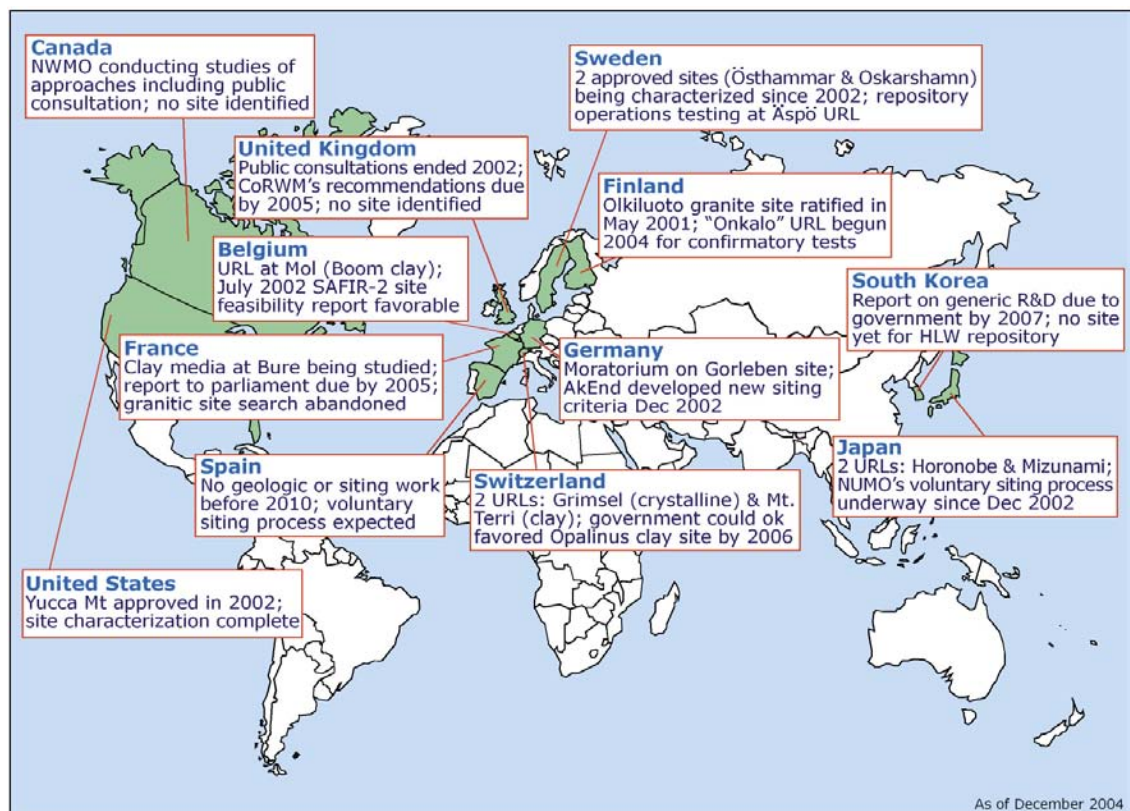
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Introduction

Leadership and participation in international high-level radioactive waste management activities have been an important component of the OCRWM Program for more than 20 years. During that period, OCRWM contributed technical and management expertise to enhance the global knowledge base of spent nuclear fuel behavior, the use of dry storage systems for spent nuclear fuel, and advances in geologic sciences and engineering resulting from the characterization of the Yucca Mountain repository site. Through international collaboration, OCRWM has had access to unique foreign facilities, data sets, scientists, techniques, experiences and instrumentation not otherwise available in the U.S. Today, OCRWM continues to benefit from interactions and participation with other nations and international organizations.

International Repository Siting Status



Mission and Vision

Mission

To foster international cooperation on high-level radioactive waste management and disposal leading to an optimized national disposal system and to promote the exchange of institutional and technical knowledge with the international community.

Vision

To be recognized for promoting international relationships and projects that demonstrate safe, secure, and environmentally responsible management and disposal of high-level radioactive waste.

Foundations of Strategy: *Values And Assumptions*

Values

Essential core values guide our conduct in international exchange. These values are consistent with the values of the OCRWM Program:

- ***Safety, Security, and Environmental Protection***

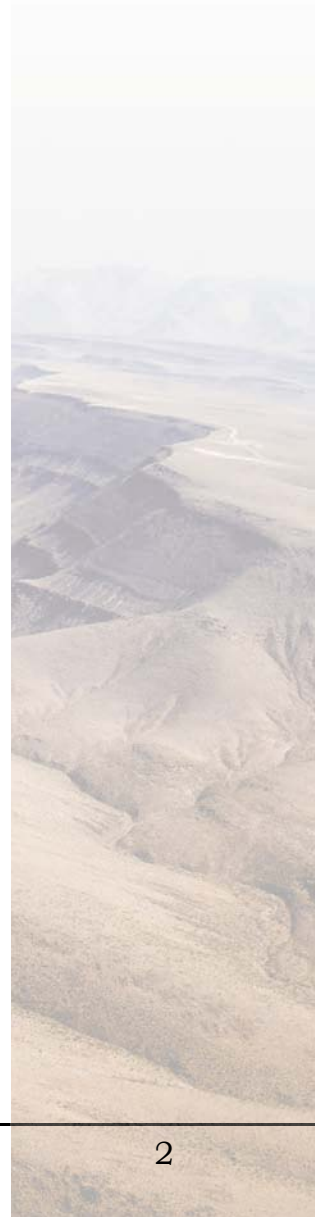
U.S. participation in international spent nuclear fuel and high-level waste exchanges leads to safe management of nuclear materials, increased security through global oversight, and protection of the environment worldwide. Technical exchange improves the high-level waste management practices of those nations with robust programs, which share cutting-edge research and experience, and with those less developed nations, which benefit from achievements in technology development.

- ***Effective Communications***

Successful international cooperation depends on honest, responsible, and timely communications. Effective communications are promoted by active participation in the activities of international organizations and by development of effective cooperative agreements with other nations.

- ***Cooperation and Consensus***

Working together with the international community offers the opportunity to develop consensus on policy, scientific, and technological approaches to the management of high-level radioactive waste. Dialogue to address common technical issues helps develop an internationally recognized foundation of sound science, benefiting the OCRWM Program.



Global Progress Through Cooperation

As early as the Atoms for Peace Program of the 1950's, the U.S. has participated in global efforts to manage the safe use of nuclear energy. With passage of the landmark Nuclear Waste Policy Act (NWPA) of 1982, the U.S. became a world leader in the search for a solution to the shared international challenge of managing high-level radioactive wastes from decades of electric power generation and weapons development.

Today, an international community of national leaders and technical organizations continues to play a prominent role in creating forums for cooperation, in which the OCRWM Program participates.

Assumptions

There is a worldwide consensus that deep geologic disposal is the preferred option for permanent management of high-level radioactive waste and spent nuclear fuel, even though some nations may decide on alternative means for managing their wastes.

We offer other nations:

- Experience in developing a comprehensive legislative framework to address long-term development of a repository
- Over 20 years of world-class science in site investigations and characterization
- Experience in developing an integrated radioactive waste management system.

We obtain from other nations:

- Experience in transporting nuclear materials
- Opportunities to enhance repository science
- Innovative technologies and methods.

Strategy and Objectives

Strategy

The International Program strategic approach is to implement the performance goals set forth in the OCRWM Strategic Plan 2003 – 2013. The goal set specifically for international activities is OCRWM's Performance Goal (PG) 4-3:

Establish the United States as a world leader in radioactive waste management and disposal through ongoing international cooperation -

- Seek involvement of international agencies and technical organizations
- Exchange strategies and technologies with other nations
- Participate in conferences and organized discussions with other radioactive waste management and disposal programs.

In implementing this international leadership goal, the International Program meets additional OCRWM goals for ongoing activities to optimize the national disposal system through cost and schedule reduction and technical enhancements. In doing so, the International Program reflects the three critical criteria established for the OST&I Science and Technology program:

- Reduce the costs and schedule of the repository and supporting systems
- Enhance understanding of the processes related to waste isolation at the repository
- Accelerate and increase innovative technology application.

Objectives

The following program objectives leverage the use of international opportunities to promote U.S. leadership and to benefit the national disposal system.

- **Enlist international support and cooperation in the identification and resolution of common institutional and technical issues through participation in international organizations**

- Participate with the IAEA Advisory Group on Spent Fuel Management scientific and technical exchange
- Identify and investigate repository development issues through the OECD/NEA
- Exchange and examine views on policy issues to support national repository efforts as a member of EDRAM

- **Develop and maintain appropriate frameworks for bilateral and multilateral cooperation**

- Bilateral Agreements, and Memoranda of Understanding are the official mechanisms to share and exchange scientific and technical information in the area of high-level waste management. Agreements in place or under development include those with Belgium, Canada, Finland, France, Germany, Japan, Spain, Sweden, Switzerland, and the United Kingdom
- Other cooperative agreements with the Russian Federal Atomic Energy Agency and Russian Academy of Sciences, Argentina, Brazil, China, South Africa, South Korea, and Taiwan support DOE and Department of State initiatives to facilitate peaceful uses of nuclear energy and promote internationally accepted waste management practices

- **Monitor and support international advances in technology that can reduce the cost and optimize the efficiency of the national disposal system**

- IAEA Spent Nuclear Fuel Burn-Up Credit Project
- NEA Advanced Fuel Cycle Project

- **Obtain and exchange information on the global status of progress and policies in high-level waste management**

IAEA

The International Atomic Energy (IAEA), with 137 member nation: United Nations' global center for cooperation working for the safe, and peaceful use of nuclear tech including radioactive waste management.

OCRWM participates in several spent fuel and underground laboratory development activities under the auspices of the IAEA.

OECD/NEA

The Standing Committee on Radioactive Waste Management (RWMC) of the Organization for Economic Cooperation and Development/Nuclear Energy Agency (OECD/NEA) assists member nations in developing safe management and disposal strategies.

For many years, OCRWM has represented the U.S. on the RWMC through coordination of U.S. activities on waste management issues.

EDRAM

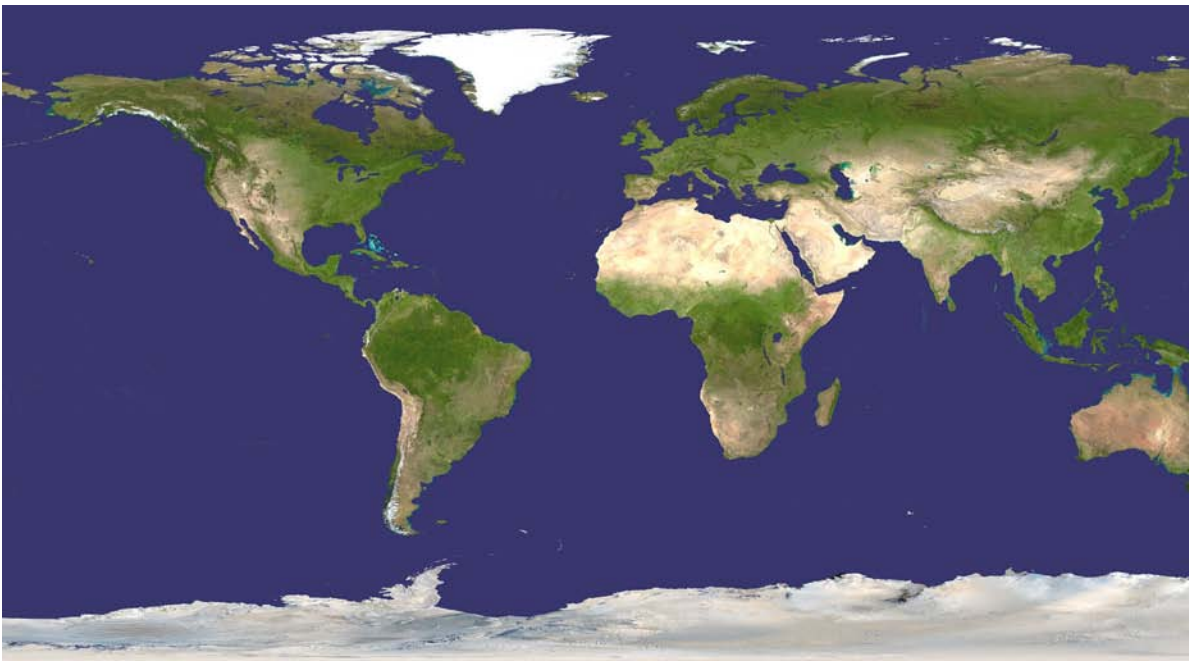
The International Association for Environmentally Safe Disposal of Radioactive Materials (EDRAM) is an international group of senior waste management officials from 11 nations, which exchanges views on policy issues and concerns, and works to develop consensus on common issues in support of their national efforts.

OCRWM was instrumental in establishing this forum and is an active participant.

- NEA (RWMC) Country Reports, Joint Convention National Reports, and EDRAM Program Update Reports
- Maintain the International Resources Database
- **Coordinate with Departmental, Federal and other entities to ensure integration of international experience into domestic program activities and decision-making**
- Department of Energy:
 - Office of Nuclear Energy, Science & Technology; Office of Environmental Management; Office of Policy & International; Office of Science; Office of General Counsel; Office of Security; National Nuclear Security Administration
- Nuclear Regulatory Commission, Environmental Protection Agency, Department of State, and Nuclear Waste Technical Review Board
- National Academy of Sciences

Moving Forward

Through the OCRWM International Program's global activities, we will continue building confidence with the international community by participating in spent nuclear fuel and high-level waste programs and discussions that lead to consensus on scientific, technical, and programmatic issues. The International Program will measure success by contributing to the optimization of the national disposal system. Additionally, in its leadership role, the U.S. will continue to assist other countries to adopt high-level waste management and disposal practices that enhance international security, safety, and environmental integrity.



Contacts

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